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25X1A [redacted]

31 March 1970

MEMORANDUM FOR: Chief, Program Coordination Staff, OC

SUBJECT : Alteration to Air Conditioning System [redacted] 25X1A

25X1A 1. The Government took beneficial occupancy of the expanded facilities, constructed under Contract [redacted] on 11 July 1969.

2. Operation of the mechanical equipment during the ensuing eight months has brought to light several new problems which could not have been determined until the actual loading conditions were placed on the equipment. These problems are associated with cold weather operations only and are listed below:

a. During cold weather the air conditioning system condensers (which are roof mounted and uninsulated) have very little requirement for mechanical cooling due to the large heat loss from surfaces of pipe, condensers, and liquid receiver tanks. This causes the condenser fans to operate frequently and for very short intervals. This intermittent operation causes problems with belt drives, motor starters and pressure controls, and frequently requires that workmen be called out to make repairs on an overtime basis.

b. The system has three air conditioning compressors which are served by only two condenser units. The two condenser units have split coils with one compressor being served by the two smaller sections of the split coils. This arrangement creates control problems during extremely cold weather for the compressor operating on the split coil since it can receive mechanical cooling from any one of the four condenser fans or all four.

25X1A 3. The Engineering Division, [redacted] discussed the problems with the A & E and with the mechanical contractor who installed the system. Several possible solutions have been discussed with the following items being accepted as the quickest and most economical choice:

a. Install electric heating tape, cable, switches, contactors and insulation on the three liquid receiver tanks.

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b. Install discharge dampers with pressure controls covering one half the surface area of the two condenser units.

4. Installation of items (a) and (b) above will cost approximately $5,000. The costs include all materials and labor for the liquid receiver tanks, but the cost of mechanical equipment and controls for the dampers are being absorbed by the [redacted] 25X1A

5. The above alterations are required to support adequately the MAX III operational equipment. Operational temperature requirements for this sensitive equipment are confined to a narrow temperature variation between 78 and 72 degrees F. - a temperature differential of 6 degrees.

6. To avoid misunderstanding this request it should be pointed out that the requirements listed above are not the same as in the average installation. New equipment, such as we are operating at this installation, is highly complex and sophisticated. Engineering problems which occur must be studied and worked out as they occur. New communications equipment brings new and unusual support requirements. Thus, we have a new and unusual problem.

7. It is requested that funds in the amount of $5,000.00 be made available for the installation of the above equipment and controls. The Chief, [redacted] concurs that this work should proceed as soon as possible. 25X1A

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DISTRIBUTION:
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1 - Chief, [redacted] 25X1A

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